

**ANNOUNCEMENT CUM INFORMATION  
BROCHURE**

**ICAR Winter School  
on**

**Climate Smart Agricultural Machinery for  
Conservation Agriculture**

06 – 26 November, 2017

**Sponsored by**



**Education Division**

**Indian Council of Agricultural Research CAB-II,  
New Delhi-110 012**

**Course Director**

Dr K. P. Singh

**Course Coordinators**

Dr. Manoj Kumar

Er. H. S. Pandey

**Organized by**



**ICAR- Central Institute of Agricultural  
Engineering, Nabi bagh, Bhopal-462038 (M.P.)**

**APPLICATION FORM**

ICAR Winter School on Climate Smart Agricultural  
Machinery for Conservation Agriculture

06 – 26 November, 2017

Institute \_\_\_\_\_ at \_\_\_\_\_.

1. Full name (in block letters): .....
2. Designation: .....
3. Present employer and address:.....
4. Address for correspondence.....
- .....E-mail:....., Tel. / Mobile  
No.....
5. Permanent address:.....
6. Date of birth: .....
7. Sex: Male/Female:.....
8. Marital status: Married/unmarried .....
9. (a) Teaching/research/professional experience  
(Mention posts held in last 5 years):

S. No.	Post held	Period with dates
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(b) Present area of research and number of publications:

10. Mention if you have participated in any Summer/  
Winter School/Short Course etc. during previous years  
under ICAR/any other organization (Give details of  
course, organizers, duration/ dates/ year etc.):

11. Registration fee of Rs. 50/- (DD/Postal Order  
No..... dated..... (in favour of **ICAR Unit-  
CIAE, Bhopal**) (Non-refundable)

12. Academic record (Degree onwards):

Exam passed	Subjects	Year	Division	University
Bachelor				
Master				
PhD				
Other				

13. Relevance of training to applicant's present academic  
and research activities:

14. Signature of applicant (indicate name of place and  
date):

15. Recommendation of the forwarding Institute  
(Signature with date, designation / address):

**CERTIFICATE**

It is certified that the above information was furnished as  
per the office record and was found correct.

(Signature and Designation of the sponsoring authority)

**Contact Address**

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**ICAR- Central Institute of Agricultural Engineering,  
Nabi bagh, Bhopal-462038 (M.P.)**

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**Important Date**

Last date receipt of application	September 26, 2017
Intimation of selection	September 30, 2017
Confirmation of participation by candidates	October 06, 2017

*NOTE: Once selected, candidates will be intimated through email  
to which they should immediately reply with firm acceptance and  
travel plans.*

## Host Institute

The ICAR-Central Institute of Agricultural Engineering is a flagship institute under Indian Council of Agricultural Research to provide engineering solutions for overall prosperity and sustainability of farming systems. The institute came into existence on February 15, 1976. The institute mandated to conduct research on agricultural mechanization, post-harvest food processing, and energy management in agriculture and build capacity of appropriate stakeholders leading to effective management of farming operations, increased productivity, conservation of resources, reduction in drudgery, prevention of losses, generation of employment and improvement in the lives of farming and allied community. The mandate is fulfilled by providing national and international leadership by means of independent and coordinated research through network of research centers established all over the country that results in developing commodity and location specific technologies needed by farmers and manufacturers. Transfer of agricultural engineering technology and education are also important activities of the institute. The developed technologies are transferred through licensing to private and public sector enterprises. The extension activities are carried out mainly through agricultural technology information centre and Krishi Vigyan Kendra, with inputs from various divisions. Linkages with different institutes, international, central and state government agencies, NGOs and industries also provide impetus to the spread of technologies. Testing of agricultural machineries, one of major activities of institute also helps liaising with the agricultural machinery manufacturers.

## About the Summer School

Climate-Smart Agriculture (CSA) is an approach to help the people who manage agricultural systems respond effectively to climate change. The CSA approach pursues the objectives of sustainably increasing productivity and incomes, adapting to climate change and reducing greenhouse gas emissions where possible. Indian agricultural production system is highly influenced by natural phenomena like or excessive rainfall, draught, flood, storm, snowfall, frost, fog etc. The variation in climatic conditions and occurrence of adverse conditions during critical stages of agricultural production process affects the productivity of any system. This in turn, diminishes the supply of farm produces to the market thus slowing down the progress of the economy. Apart from this, the old cultivation practices exploiting the limited natural resources put an adverse effect on the environment which in the long run aggravates the worsening climatic conditions resulting into depletion of natural resources.

The mission of increasing food grains production, though somehow realized at present, is further under risk due to climatic aberrations and reduced availability of land and other resources to cope up demands of increasing population. As the natural resources like soil, water and externally applied production inputs are going to be reduced per capita and also the reduction in partial factor productivity, there is need for paradigm shift in production philosophy and package of practices.

Conservation agriculture (CA) which aims at sustaining the resource base and also improving their efficiency under a demand of sustainable production system is of great importance in integrating broader aspects of soil-biota-interaction with climate. The basic objective of the course is to acquaint the participants with the latest issues and recent innovations of climate smart agricultural machinery for conservation agriculture and its effect on mitigation and adaptation of climate change. This course would offer the theory and practical oriented understanding of the climate smart agricultural technologies/ machineries for improving production and reducing the adverse effect of climate change. This will help the participants to understand management strategies better for their future planning of research, teaching and extension under conservation and climate smart agriculture.

## Location and Climate

The ICAR-Central Institute of Agricultural Engineering campus is located at Nabibagh, Berasia Road 7 km from Bhopal railway station and 6 km from airport. During November month, the climate would be moderate cold and pleasant.

## Course content

The major course contents to be covered in the training programme are:

- Climate Smart Agricultural Machinery
- Conservation agriculture and residue management
- Remote sensing - concepts and application in conservation farming
- Effect of elevated CO<sub>2</sub> and temperature on productivity of major cropping systems of central India
- Sensors and instrumentation for measurement of performance parameters of equipment
- Techniques for management of soil fertility quality for conservation agriculture
- Decision support and expert system to analyze data and make decision for conservation farming
- Ergonomics and safety in CA Machinery
- Biomass management for efficient utilization of surplus crop residue
- Field demonstration of seeding/planting machines

suitable for conservation agriculture

- Automation of pressurized irrigation and covered cultivation systems for conservation agriculture

## Eligibility

This Winter School is meant for active researchers' /teachers/ scientists in ICAR Institutes/ SAUs/ Agricultural colleges in the rank of Scientists/ Asst. Prof. or above in the field of Agricultural Sciences / Agricultural Engineering or any other related disciplines. A maximum of 25 participants will be selected for the course by the screening committee as per the ICAR guidelines. The decision of the selection committee will be final and no correspondence in this regard will be entertained for non-selected candidates.

## How to apply

As per ICAR instructions, the interested candidates should apply online by registering at CBP portal (<http://cbp.icar.gov.in>) through "Capacity Building Programme" latest by 06.09.2017. Printout of online submitted form duly signed and recommended by the competent authority of SAU/ICAR Institute should be sent to the Course Director of Summer School through proper channel along with non-refundable registration fee of Rs. 50/- in form of DD/Postal Order drawn in favour of **ICAR Unit-CIAE, Bhopal**. Applicants may send an advance copy in anticipation of delay in forwarding through proper channel. The list of selected candidates will be displayed in ICAR-CIAE website ([www.ciae.nic.in](http://www.ciae.nic.in)) and will also be conveyed to the applicants only through e-mail. Only 25 participants shall be selected for the course. In case any query please contact Course Director or Course Coordinators.

## Travel, Boarding and Lodging

Participants will be paid travel (to and fro) fare by rail (Restricted to AC-II tier) or by bus as per their entitlement. Actual TA for the shortest route will be paid on production of the tickets. Participants are requested not to bring their spouse or any family members as there is no scope for their accommodation. If you still want to bring them then you yourself need to arrange their accommodation outside ICAR-CIAE campus at your own cost and also requested to make his/her own arrangement of transport to reach at ICAR-CIAE. Free shared accommodation in the Trainee Hostel of the Institute and free boarding (food) will be provided to the selected candidates during the training programme. The local candidates are not eligible for boarding and lodging, however, they will be provided local hospitality (lunch, tea, snacks etc.).

Detailed information is also available at: <http://cbp.icar.gov.in>